This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing Of Claims:

Claims 1 - 16 canceled

17. (Currently Amended) In a system having a bi-directional auxiliary channel arranged to transfer information between a video source and a video display and vice versa and a unidirectional main link arranged to carry a number **of** multimedia of data packets from the video source to the video display, a method of establishing a stable main link, comprising:

prior to starting transmission of multimedia data packet streams from a video source to the video display over the main channel,

using a link training session and a pre-defined training pattern carried out over the auxiliary channel to establish the stable main link, wherein the training pattern includes a number of training phases wherein a phase 1 represents a shortest run length and wherein a phase 2 are used by the receiver to optimize and equalize and wherein in a phase 3, both a bit lock and a character lock are achieved as long as the link quality is acceptable.

18. (Previously Presented) A method as recited in claim 17, further comprising

sending the pre-defined training pattern by a main link transmitter;

determining whether or not the video display can achieve a solid bit/character lock based upon the training pattern, wherein substantially all link training related handshaking between the video source and the video display is carried on the auxiliary channel.

19.   (Previously Presented) A method as recited in claim 18 wherein if the video display does not achieve the solid bit/character lock, the video display informs the video source via the auxiliary channel.

20.   (Previously Presented) A method as recited in claim 19, further comprising:

reducing the link rate by the video source;

repeating the training session until the solid bit/character lock is achieved; and

sending a fault message based upon the failure to achieve the solid bit/character lock.

21.   (Currently Amended) In a video system having a video source and a video display, and a packet based video monitor trainer, comprising:

a bi-directional auxiliary channel arranged to transfer information between the video source and the video display device and vice versa;

a unidirectional main link arranged to carry a number **of** multimedia data packets from the video source device to the video sink device;

a main link receiver unit at the video display and a main link transmitter unit at the video source each coupled to the main link;

an auxiliary channel slave unit coupled to the auxiliary channel wherein both the main link receiver unit and the auxiliary channel slave unit are each in an electrically idle state in a monitor standby mode and wherein when a hot plug event has been detected, then the system moves to a display state at which time the auxiliary channel slave unit is turned on and the main link transmitter unit responds to a receiver link capability read command; and

a training pattern unit arranged to generate a training pattern used by the transmitter in a training phase to adjust an equalizer which is updated based upon a result

for each training phase, wherein the training pattern includes a number of training phases wherein a phase 1 represents a shortest run length and wherein a phase 2 are used by the receiver to optimize and equalize and wherein in a phase 3, both a bit lock and a character lock are achieved as long as the link quality is acceptable.

22. (Previously Presented) A trainer as recited in claim 21 wherein when the training fails, another training session is commenced.

23. (Previously Presented) A trainer as recited in claim 22, wherein when the training session passes, then the display is normally operating.

24. (Previously Presented) A trainer as recited in claim 23, wherein when it is determined that there is no activity on the auxiliary channel for a predetermined period of time, then the auxiliary channel slave port is set to the standby state.

25. (Previously Presented) In a system having a bi-directional auxiliary channel arranged to transfer information between a video source and a video display and vice versa and a unidirectional main link arranged to carry a number multimedia data packets from the video source to the video display, computer program product for establishing a stable main link, comprising:

prior to starting transmission of multimedia data packet streams from a video source to the video display over the main channel,

computer code for using a link training session and an pre-defined training pattern carried out over the auxiliary channel to establish the stable main link, wherein the training pattern includes a number of training phases wherein a phase 1 represents a shortest run length and wherein a phase 2 are used by the receiver to optimize and

equalize and wherein in a phase 3, both a bit lock and a character lock are achieved as long as the link quality is acceptable.

26. (Previously Presented) Computer program product as recited in claim 25, further comprising:

computer code for sending a pre-defined training pattern by a main link transmitter; and

computer code for determining whether or not the video display can achieve a solid bit/character lock based upon the training pattern, wherein substantially all link training related handshaking between the video source and the video display is carried on the auxiliary channel.

27. (Previously Presented) Computer program product as recited in claim 26 wherein if the video display does not achieve the solid bit/character lock,

computer code for informing the video source via the auxiliary channel.

28. (Previously Presented) Computer program product as recited in claim 27, further comprising:

computer code for reducing the link rate by the video source;

computer code for repeating the training session until the solid bit/character lock is achieved; and

computer code for sending a fault message based upon the failure to achieve the solid bit/character lock.

29. (Previously Presented) A packet based video monitor trainer coupled to a video monitor, comprising:

an equalizer unit; and

a training pattern unit coupled to the equalizer unit arranged to generate a training pattern that includes a number of training phases that includes a phase 1 training phase that represents a shortest run length and a phase 2 training phase that are used by a receiver to optimize and equalize and a phase 3 training phase in which both a bit lock and a character lock are achieved as long as a link quality is acceptable, wherein during a training phase the equalizer unit is updated based upon a result for the training phase.

30.   (Currently Amended) A video monitor trainer as recited in claim 29, further comprising:

a video source;

a video monitor coupled to the video monitor trainer;

a unidirectional main link arranged to carry a number **of** multimedia data packets from the video source to the video monitor;

a main link receiver unit at the video monitor; and

a main link transmitter unit at the video source each coupled to the main link.

31.   (Previously Presented) A video monitor trainer unit as recited in claim 30, further comprising:

a bi-directional auxiliary channel arranged to transfer information between the video monitor and the video source.

32.   (Currently Amended) A video monitor trainer unit as recited in claim 31, further comprising:

an auxiliary channel slave unit coupled to the auxiliary channel wherein both the main link receiver unit and the auxiliary channel slave unit are each in an electrically idle state in a

monitor standby mode and wherein when a hot plug event has been detected, then the system

moves to a display state at which time the auxiliary channel slave unit is turned on and the main

link transmitter unit responds to a receiver link capability read **command.** ~~command; and~~